ACC.15
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A812
JACC March 17, 2015
Volume 65, Issue 10S

Heart Failure and Cardiomyopathies

IN HOSPITAL WEIGHT CHANGE IS NOT ASSOCIATED WITH READMISSION RISK IN PATIENTS WITH HEART FAILURE

Poster Contributions
Poster Hall B1
Saturday, March 14, 2015, 10:00 a.m.-10:45 a.m.

Session Title: Many Faces of Heart Failure
Abstract Category: 14. Heart Failure and Cardiomyopathies: Clinical
Presentation Number: 1113-195

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Background: Adequate weight change as a reflection of fluid balance in patients hospitalized for heart failure (HF) is considered essential for high quality care. However, the association with short-term clinical outcomes is unclear.

Methods: We conducted a retrospective observational cohort study of all consecutive adults admitted to a single center from June 2012 to February 2013 with decompensated HF (N = 658) to determine the relationship between weight change and 30 day readmission risk. We collected demographic, clinical, laboratory, imaging and weight information on all patients. We performed bivariate analyses and multivariable logistic regression analyses to determine the associations between weight change and two outcomes: 30-day all-cause readmission and 30-day HF specific readmission.

Results: Admission and discharge weights were documented 72.8% of the time, though admission (10.6%) and discharge (36.8%) standing weights were far less common. Average weight loss was 2.8 kilograms (kg) (3% of initial weight). Weight change, both absolute and as a percentage of initial body weight, was not associated with 30-day all-cause or HF specific readmission. (Table)

Conclusion: Although considered a valuable assessment of treatment effect, in hospital weight change was not associated with 30 day readmission among HF inpatients. The influence of substandard weight collection, poor documentation of weights, and other clinical variables on this lack of association deserves further study.

Table: Association Between Weight Loss and 30-day all-cause readmission and 30-day HF specific readmission: Multivariate Logistic Regression Models

	30-day all-cause readmission			30-day HF specific readmission		
	OR	CI	p	OR	CI	p
Absolute Weight Loss (in kg)	0.883	0.769-1.013	0.0765	0.892	0.739-1.077	0.2338
Weight Loss as percentage of initial weight	1.080	0.968-1.204	0.1681	1.062	0.920-1.227	0.4123

Based on results of a Multi-Variable Logistic Regression Model that included Age, Sex, Race, left ventricular ejection fraction, pro B-type natriuretic peptide (ProBNP), Troponin T, history of chronic kidney disease, admission serum sodium level, discharge serum blood urea nitrogen level, discharge serum creatinine level, discharge serum sodium level, the patient's calculated Yale Center for Outcomes Research & Evaluation (CORE) score, presence of a documented standing weight on admission and discharge, weight loss as a percentage of measured initial weight, and absolute weight loss in kilograms.